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ABSTRACT

Students in introductory classes in communication research methodology are told several basic concepts; science is cumulative; science is self-correcting; empirical controversies are resolvable; and science is creative and exciting. However, unless evidence in the form of empirical data is presented to support these assertions, most students fail to fully comprehend them. Introducing students to studies selected from closely related strains of research literature could enable them to understand such concepts within the field of communication research. Two areas of communication research provide studies for such literature review: the "risky-shift" phenonomenon, perhaps best suited for undergraduate introductory courses, and the dissonance theory/self-perception controversy, probably more appropriate for a graduate course. (References in two additional areas--distraction and persuasion, and the two-step flow hypothesis--and general references are provided.) (JM)

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Teaching Basic Communication Science Concepts Through a Guided Literature Review

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CS 500 830

Teaching Basic Communication Science Concepts Through a Guided Literature Review

John E. Hocking and M. Mark Miller

An important component of introductory communication research methodology classes is a section which emphasizes the advantages of a scientific approach to study of human communication. Students are told that: (1) Science is cummulative. Since scientific inquiry is directed, systematic and public, scientists need not start research from scratch. They can build on the prior body of knowledge; (2) Science is self-correcting. Since knowledge claims are tied to empirical observations and subject to scrutiny by other scientists, errors are likely to be detected and corrected; (3) Empirical controversies are resolvable. Interested parties do more than sit back in their armchairs and speculate about how things are. They design research which provides data on which to base knowledge claims relevant to the controversy; (4) Science is creative and exciting.

Students who have taken such a course can readily recite these concepts back on an exam, but whether these recitations amount to more than mere lip service--or counter-attitudinal advocacy--is questionable. Our own experience suggests that it does not. We believe that many, if not most, students in introductory methodology classes fail to fully understand or "internalize" these ideas. We suggest that a major reason for this is way in which these concepts are typically presented. These courses simply assert that science is cummulative, self-correcting, and so on. No evidence in the form of empirical data is presented to support these assertions. We propose a pedagogical tool which would allow students to see in a processual and dynamic way these concepts emerge

empirically (and persuasively) from extent literature. Specifically, we propose introducing students to a series of studies selected from closely related strains of research literature. While reviewing the historical development of a body of knowledge students could readily see these basic communication science concepts in the "real world" of communication research. Students would not merely be told that scientific knowledge is cummulative, they would see it accumulate. It would not merely be a static assertion that science is self-correcting, rather they would see the process of self-correction happen. They would not have to accept on faith the notion that empirical controversies are resolvable, they would see them being resolved.

Strains of research literature which lend themselves to a guided literature review should meet several criteria. The studies need to be focused on a rather narrow issue. Exposure to a small number of studies should provide an adequate understanding of the area represented. The chronology of the studies selected is more important than the number. It is possible to read dozens of studies in a narrow area and not get an historical perspective on the progression of knowledge.

Studies which use relatively easily understood designs and data analytic techniques would also be preferable. Further, it has been our experience that introductory students have an easier time understanding research in which the variables are closely tied to operational procedures rather than research which examines relationships between abstract theoretical constructs which are connected to observable data only indirectly through other constructs.

Finally and perhaps most importantly the research should clearly demonstrate these concepts; i.e., knowledge being accumulated, errors being corrected, controversies being resolved, and so on. In short, the strain of literature should

represent a microcosm of scientific inquiry operating as close to the ideal as possible. There is plenty of time for students to learn that the ideal is not typically realized. We believe that only when students have a firm grasp on the advantages of science are qualifications understood in proper perspective. Of course, a scientific approach to studying human communication is not perfect, but imperfections need not be emphasized during a guided literature review.

A wide variety of communication content areas could be used for a guided literature review. Instructors would probably be best off to use appropriate strains of literature which are compatible with their own interests. In this paper, we briefly describe two areas of communication research which lend themselves to this purpose particularly well, and more explicitly point out how these communication science concepts emerge from the studies we describe. The studies focus on the so called "risky-shift" phenomenon and on the dissonance theory/self-perception controversy. The risky-shift literature is the more easily understood and is probably better suited for undergraduate introductory methodology classes. The dissonance/self-perception literature is probably more appropriate for a graduate course.

THE RISKY SHIFT PHENOMENON

Overview

The literature on "risky-shift" focuses on a process that interests many communication scientists--the effects of group interaction on attitudes, perceptions of appropriate behavior, and actions based on those attitudes and perceptions. The area was born in 1961 when Stoner reported in his masters thesis that groups make more risky decisions than individuals. Since Stoner's findings seemed to have direct application to decision making policy and ran contrary to expectations derived from research on group norms, other investigations rushed to

replicate the study. The findings were readily reproduced using Stoner's instrumentation--a 12-item "life dilemmas" test developed by Wallach and Kogan (1959). Studies using the instrument have yielded remarkably consistent results in numerous populations and countries. (Pruitt, 1971.)

The findings soon took on the credence of law-like generalizations and researchers focused on questions like that asked in the title of a review article: "Why do groups make riskier decisions than individuals?" (Dion, Barron and Miller, 1970) Assuming the risky-shift phenomenon reliable, numerous studies tested competing theoretical explanations for the phenomenon disregarding some and modifying others. In short, researchers quickly moved from studying whether or not groups make riskier decisions than individuals and began trying to explain why they did.

After a considerable amount of research energy had been invested a number of researchers began to question whether groups were always riskier than individuals. Modifications of the "life dilemma" items were found to result in no shift or in some cases a conservative shift. Other studies using risks which more closely approximated "real" risks also yielded a conservative shift. The notion that groups were necessarily more risky than individuals became untenable.

However, the theoretical crises that resulted from the discovery was not the loss of a proposition; rather, it was the revelation that theories designed to account for risky shifts were not adequate to explain the far more subtle and complex effects of group interaction on group values. Recent studies growing out of the risky shift investigations have found group induced shifts in attitudinal areas entirely unrelated to assessments of risk. Thus, theory and research in the area has come full circle, with new findings destroying old notions and investigators devising and testing new explanations.

Review of Recommended Literature

Of the more than 200 available reports on risky shift and its direct progeny those listed below are representative of the area and meet our criteria for a guided literature review. It should be noted that Stoner's masters thesis would be an obvious beginning point; however, it has never been published.

The Wallach and Kogan instrument presented twelve "life delemmas" each with two alternatives, one more desireable than the other, but involving more risk. An example of such an item is:

> A college senior planning graduate work in chemistry may enter University X where, because of rigorous standards only a fraction of the graduate students manage to receive the Ph.D., or may enter University Y which has a poorer reputation but where almost every graduate student receives the Ph.D.

Subjects are asked to recommend the minimum level of risk (1, 3, 5, 7, or 9 chances out of ten that the risky alternative would pay off) necessary before they would recommend the riskier but potentially more rewarding alternative be selected by hypothetical person facing the dilemma.

Stoner administered the instrument to his subjects as individuals, then asked them to discuss the items in groups until they reached consensus. He found that the groups' postdiscussion recommendations were significantly more risky than the individuals' predecision recommendations.

Wallach, M.A., Kogan, N., & Bem, D.J. Group influence on individual risk taking. Journal of Abnormal and Social Psychology, 1962, 65, 76-86.

Suspecting that Stoner's sample--all male, industrial management students, was unique, Wallach et al embarked on the first major replication of Stoner's work. Reasoning that women might have clearly different risk taking behaviors than men, they used all male and all female groups in their experiment. Risky shifts were found in both types of groups. In addition, Kogan et al reported

that postdiscussion individual recommendations were as risky as the group consensus and that the risky shift persisted in individuals over a period of at least six weeks.

Marquis, D.G. Individual responsibility and group decision involving risk. Industrial Management Review, (1962), 3.

Kogan et al offered "diffusion of responsibility" as an explanation for risky shift; that is, that group members feel less constrained to conservatism because others share responsibility for possible wrong decisions. Marquis designed an experiment to test this explanation. He designated the group member whose initial risk taking score was closest to the group mean as group leader. The leader could conduct the discussion in any manner he wanted but the final decision on each item was his alone. With responsibility clearly on one person, the results showed the same risky shift as when decisions were made by group consensus. Later researchers report results consistent with the rejection of the diffusion of responsibility hypothesis. (Pruitt and Teger, 1969.)

Teger, A.I., and Pruitt, D.G. Components of group risk taking. Journal of Experimental Social Psychology, (1967), 3, 189-205.

By 1967, evidence had begun to accumulate showing that cautious as well as risky shifts could be produced by group discussion. Brown (1965) had offered an explanation for both cautious and risky shift. According to Brown's theory, cultural norms lead individuals to label decision problems as warranting either cautious or risky shifts. Teger and Pruitt set out to test this explanation and the diffusion of responsibility hypothesis. They found that larger groups manifested more shift toward risk than smaller groups; however, they also noted a correlation between initial recommendations toward risk and risk shift. This correlation, they argued, is good evidence in support of Brown's theory.

Maderas, G.R. and Bem, D.S. Risk and conservatism in group decision making. Journal of Experimental Social Psychology, (1968), 4, 350-365.

Evidence of a more direct nature was offered in support of Brown's hypothesis by Maderas and Bem who reported that peers rated high risk takers on semantic differential scales as "being more strong, active, successful," etc.

Clark, R.D. and Willems, E.P. Where is the risky shift: Dependence on Instructions. Journal of Personality and Social Psychology, (1969) 13, 215-221.

The majority of risky shift studies used the Wallach and Kogan (1959) instrument which included standardized instructions telling subjects to "indicate the lowest probability of success he would accept before recommending that the potentially more rewarding alternative be chosen." In an elaborate study, Clark and Willems deleted the word "lowest" from the instructions and replicated several of the conditions commonly used in risky shift experiments. They found that this simple deletion in the instructions eliminated risky shifts in all the conditions. Control conditions where standard "risk oriented" instruction were given resulted in risky shifts.

Clement, D.E. and Sullivan, D.W. No risky shift with real groups and real risks. Psychonomic Science, (1970), 18, 243-244.

On another critical front, Clement and Sullivan became concerned with the hypothetical "let's pretend" nature of the Wallach and Kogan instrument. They used eight examination schedules from which students were to choose the one to be employed in their class for the semester. The schedules ran at equal intervals on a scale from very risky to very conservative. The subjects gave their initial individual preferences and then to resolve expressed disagreement, were put into groups to reach a consensus decision on one of the schedules. Clement and Sullivan found that group discussion did produce a shift in level of riskyness, but in a conservative direction.

Myers, D.G. and Bishop Discussion Effects on Racial Attitudes. Science, (1970), 169, 778-779.

By 1970, the generalization that groups are necessarily more risky was discredited; however, the theoretical underpinnings that developed to explain risky shifts suggested a far more general phenomenon. Following Brown's cultural value hypothesis and the speculation of other investigators (Alker and Kogan, 1969; Levinger and Schneider, 1969), Myers and Bishop decided to apply the general risky shift paradigm in non-risky attitude settings. They divided a sample of high school students into three groups--high, medium, and low prejudice--on the basis of an attitudes-toward-blacks inventory. They found that following discussion of the inventory items the high prejudice groups had increased significantly in prejudice, the low prejudice groups decreased significantly, and the medium prejudice groups remained approximately the same. This study, among others, demonstrated that group discussion could induce changes in attitudinal evaluations not involving risk.

Cvetkovich G. and Baumgardner S.R. Attitude polarization: The relative influence of group structure and reference group norms. Journal of Personality and Social Psychology, (1973), 26, 159-165.

Work to investigate and explain shifts in evaluations following group discussions continues to date. In a recent study, Cvetkovich and Baumgardner investigate whether group induced shifts can be attributed to the average valence of attitudes within a group or to the values of reference groups evoked during discussion. They used attitudes toward civil disorder as their topic of concern. They established that within their subject population the dominant social norm was non-punitive toward civil disorder. Cvetkovich and Baumgardner were able to investigate the relative impact of social norms and within group attitudes by putting together groups which varied in the degree to which their members endorsed the population social norm. They found that shifts were predominantly in the direction of the social norm and not necessarily in the direction of the

values held in the discussion groups. This finding is, of course, tentative, but it does offer a tenable explanation of group induced shift.

The Dissonance Theory/Self Perception Theory Controversy

Overview

The research described here represents a different kind of controversy than does the risky-shift literature. Both dissonance and self-perception theories make basically the same predictions but the presumed underlying processes which result in these predictions are quite different.

Festinger's (1957) theory of cognitive dissonance essentially says that a person holding two cognitions that are inconsistent, will experience an internal state of psychological tension which he or she will seek to reduce. One of the ways to reduce this cognitive tension or "dissonance" is to change one of the cognitions. Festinger reasoned that if an individual were induced to tell another individual that a boring task was interesting he would experience dissonance between the cognition, "this task is dull" and his verbal statement, "This task is interesting." If the inducement to engage in this counter attitudinal verbal behavior was small the individual might reduce the dissonance by changing his attitude toward the task and believing that it was actually more interesting than he had originally thought. On the other hand, if the inducement were large the individual would tend not to experience dissonance because the large inducement could serve as a rationalization for his attitudinally discrepant behavior. Thus, individuals who had large justification for their behavior would tend to believe that the task was less interesting than those given a small justification. This prediction was tested and supported in a classic experiment by Festinger and Carlsmith (1959).

Dissonance theory accounts for attitude change with a hypothetical internal process; i.e., the arousal and reduction of dissonance. Bem (1965, 1967) suggested an alternative formulation which accounts for dissonance theory predicted findings but without resorting to such hypothetical internal processes. His self-perception theory suggests that much in the same way we observe other people's behavior and the characteristics of the situation in which the behavior occurs and then infer what their attitudes are, we infer our own attitudes. That is, individuals observe their behavior and the environmental conditions which appear to have an effect on their behavior and infer what their attitudes must be.

Bem is suggesting that subjects in Festinger and Carlsmith's (1959) experiment were in much the same situation for determining their own attitudes that an outside observer would be. The observer would in effect ask, "What must this person's attitude toward the task be if he is willing to tell another person that it is an interesting task for a large (or small) reward." The person actually confronted with deciding what his own attitude was would similarly ask, "What must my attitude toward this task be if I am willing to tell another person that it is an interesting task for a large (or small) reward." In both cases, they would conclude that telling the other person the task was interesting for a small reward reflected a more favorable attitude towards it than if the reward had been large.

A vigorous controversy has developed in the last six or seven years between the advocates of dissonance and self-perception theories and we believe that the resulting literature is well suited for the guided literature review we are advocating.

Review of Recommended Literature

Festinger, L. and Carlsmith, J.M. Cognitive consequences of forced compliance. Journal of Abnormal and Social Psychology, 1959, 58, 203-210.

If the number of times a study is referenced in succeeding publications is a good measure of the importance of a study this experiment is one of the most important in the history of the social sciences. Cognitive dissonance theory has generated more research by social and personality psychologists and by communication scientists interested in attitude change than any other contemporary statement about human behavior. (Bem, 1972.)

In this study, Festinger and Carlsmith brought subjects into a laboratory and had them turn pegs in a peg board one quarter turn until all pegs had been turned completely around. This task was clearly quite tedious and boring. Afterwards they were told that the purpose of the experiment had been to compare how people who had no expectations about the interestingness of the task differed in performance from those who were told that it would be extremely interesting.

Further, they were told that the person who was supposed to tell the next subject that the task was interesting had not shown up. The subjects were then offered either $1.00 or $20.00 to do this. After the subjects had told the next subject (really a confederate) that the task was extremely interesting they filled out a scale which asked them how interesting they had found the task. As predicted, subjects who had been paid $1.00 found the task to be significantly more interesting than those paid $20.00.

Bem, D.J. Self perception: an alternative interpretation of cognitive dissonance phenomenan. Psychological Review, 1967, 74, 3, 183-200.

In this paper, Bem introduced the major tenets of self-perception theory. He relies heavily on Skinner's (1957) discussion of how individuals come to learn about their internal states. Following this discussion of the rationale

for his theory Bem proceeds to report a series of what he calls "interpersonal replications" of previously conducted dissonance framework experiments. Essentially, these replications involve explaining to subjects the situation which original subjects were faced with. The behavior of the original subjects is then described to the "replication" or "observer" subjects who are then asked to estimate the original subjects response to the dependent variable. Bem reasons, that if actors and observers are indeed in an equivalent position; that is, make inferences based on the same data, behavior and situational characteristics that can effect the behavior; the replication subjects who are observers of sorts of the original subjects should be able to accurately estimate the attitudes of original subjects toward the object of their behavior. One of the studies he replicates in this fashion is the Festinger and Carlsmith (1959) study.

Subjects listened to a tape recording which described a college sophomore who participated in an experiment involving two motor tasks. The peg turning task was described in detail but non-evaluatively. "Observer" subjects were further told that this individual was then paid $1.00 (or $20.00) to tell the next subject that the task was interesting and enjoyable. Observer subjects then heard what was supposedly the original subject imaginatively arguing that the tasks were fun and enjoyable. Findings were consistent with Bem's prediction. Observer subjects who were told original subjects received $20.00 believed that these subjects found the task less interesting than observer subjects who were told that original subjects had received $1.00.

Jones, R.A., D.E. Linder, C.A. Kiesler, M. Zanna, and J.W. Brehm. Internal States or External Stimuli: Observers' attitude judgements and the dissonance-theory-self-persuasion controversy. Journal of Experimental Social Psychology, 1968, 4, 247-269.

These authors suggest that Bem commits two errors in his interpersonal replications. (1) The descriptions used by Bem imply that a typical hypothetical

subject would not comply with the request to tell the next subject that the task was interesting. Since the hypothetical subject in the description Bem provides his "observer" subjects does conform to the requested behavior, these observer subjects would infer that this person was not typical and may have initially been more willing to comply than most subjects. That is, those who complied might have thought the task more interesting than those who did not. The authors are suggesting that observer subjects may have merely judged differentially original subjects self-selection. (2) Bem did not provide his observer subjects with information about the original subjects initial attitudes toward the task before they told the waiting "subject" that the task was interesting. They reasoned, not unreasonably, that since original subjects had this information about themselves, observer subjects should also have this information.

In this paper, they report a series of their own interpersonal replications of dissonance framework experiments in which they manipulated the amount of information provided to observer subjects about the original subjects initial attitudes. They were only able to replicate Bem's findings in the condition in which his exact descriptions were used. Observer subjects were unable to accurately evaluate original subjects postmanipulation attitudes when they had information about original subjects initial attitudes. These results appeared to provide evidence against Bem's position.

Bem, D.J. The epistemological status of interpersonal simulations; a reply to Jones, Linder, Kiesler, Zanna, and Brehm. Journal of Experimental Social Psychology, 1968, 4, 270-274.

This is a non-data paper in which Bem responds directly to the paper described above. He states that differential self-selection of original subjects infered by observer subjects is part of the self-perception process. Original subjects usually do believe that "typical" subjects do not comply with the

request to engage in the counterattitudinal behavior. Thus, when they observe themselves engaging in the requested behavior they infer that they must be more favorable towards the object of the behavior than typical subjects. In short, differential self-selection is operating for both observer subjects and original subjects.

In answering Jones et al's second criticism, Bem suggests that they misunderstand the epistemological status of interpersonal replications. He says they are analogous to computer simulations. The information provided to observer subjects is equivalent to "input" statements and these subjects judgements about the attitudes of original subjects are output statements. Self-perception theory suggests that initial attitudes will not be important relative to later behavior. Thus, Bem's input statements did not include information about initial attitudes. He suggests that Jones et al's inclusion of this information in their "simulations" incorrectly overemphasized the salience of original subjects initial attitudes causing their results.

Bem, D.J. and McConnell, H.K. Testing the self-perception explanation of dissonance phenomena: on the salience of premanipulation attitudes. Journal of Personality and Social Psychology, 1970, 14, 23-31.

A controversy resulted from Bem's "interpersonal replications" of dissonance framework experiments which centered on the importance of the subjects' attitudes prior to engaging in the required behavior. Bem argues that since subjects are infering their own attitude from their behavior, any initial attitude they might have toward the object of their behavior is unimportant. He thus did not provide information about the original subjects initial attitudes to his "observer" subjects. Bem's critics argue that original subjects had this information about their own attitudes so it should have been provided to the "observer" subjects.

This study was designed to answer the question of whether or not subjects in dissonance framework experiments know their initial attitudes after engaging in counter-attitudinal behavior. A fairly standard dissonance experiment was conducted in which subjects wrote a counterattitudinal essay. Half the subjects were given a typical post-test measure of their attitudes toward the topic they had written the essay on. The other half were asked to recall their original attitudes which they had been pretested on the previous week. The mean recall error of their original attitudes was in the direction of the essay they had written and was almost identical to the attitude change score found in the subjects who were just asked what their attitudes were at that time. This finding supports the self-perception interpretation of these experiments.

Interestingly, at the end of this study, Bem calls for a halt to this controversy. He states that, "if the past history of controversies like this is any guide, it seems unlikely that a 'crucial' experiment for discriminating between the two theories will ever be executed." Others involved in the controversy, however, were unconvinced.

Nisbett, R.E., and Schachter, S. Cognitive manipulation of pain. Journal of Experimental Social Psychology, 1966, 2, 227-236.

Supporters of a self-perception theory interpretation of dissonance framework findings have marshalled evidence for their position from several different research areas. In this study, subjects were given a placebo pill and told either that the pill would cause hand tremor, palpitations, and other autonomic arousal symtoms or that symtoms resulting from the pill were unrelated to autonomic arousal. Subjects were then asked to take a steadily increasing series of electric shocks. Subjects who thought their arousal was a result of the pill were willing to tolerate four times the shock tolerated by other subjects. Presumably, the subjects who thought the pill caused their arousal observed their

behavior, ("I'm being shocked") and their arousal level ("My heart is pounding, my palms are sweating, etc.") and possible reasons for their feelings. ("I just took a drug that is causing me to feel like I do.") Thus, their self-perceptions were that the drug was at least partially causing their arousal and they thought the shocks less serious. Subjects who thought the drugs' symptoms were unrelated to their arousal had no such explanation for their arousal and thus thought the shock was causing their feelings and consequently perceived the shock to be more painful. This study provdes only indirect support for self-perception theory in dissonance framework experiments.

Kiesler, C.A. and J. Sakamura A test of a model for commitment. Journal of Personality and Social Psychology, 1966, 3, 349-353.

If subjects were induced to engage in behavior that was consistent with their beliefs, dissonance theory could not provide a prediction about the effects of this behavior. There must be a discrepancy between the attitude and behavior before dissonance theory becomes operative. In this study, subjects were paid either $5.00 or $1.00 for reading a speech consistent with their opinions about lowering the voting age to eighteen. Those paid $5.00 were subsequently more persuaded by a communication message arguing against their beliefs about the voting age. The beliefs of those paid $5.00 were undercut by this high payment. Subjects in this condition may have inferred from their behavior and the circumstances which appeared to have influenced their behavior that they read the speech in part because of the money, even though they were in favor of the topic to begin with. This finding provides support for self-perception theory.

Snyder, M. and Ebbesen, E.B. Dissonance Awareness: a test of dissonance theory versus self-perception theory. Journal of Experimental Social Psychology, 1972, 8, 502-517.

This was the first study which generated clearly opposite predictions from the two theories. Dissonance theory predicts that if subjects initial attitudes

were made salient, any discrepant behavior would result in even greater dissonance and would necessitate greater attitude change to reduce this dissonance. Self-perception theory predicts the opposite. If initial attitudes are made salient, subjects cannot so readily infer their attitudes from their behavior since they now have a contradictory piece of data with which to integrate their observations of their behavior and of the characteristic of the situation in which the behavior is occuring. They would therefore be less likely to change their attitude following the counterattitudinal behavior. To test these opposite predictions the authors had subjects write counterattitudinal essays, but half the subjects were told to "organize their thoughts" about the topic of the essay before being told the side they would be arguing for. Control subjects for whom initial attitudes were not made salient received no such instructions. The results generally supported the self-perception prediction. Subjects whose initial attitudes had been made salient changed their attitudes significantly less (when subjects had been given the impression that they had choice as to whether or not to write the essays) than subjects whose premanipulation attitudes had not been made salient.

Discussion

We believe that the concepts we have been discussing emerge quite clearly from this literature. (1) Science is cummulative. Each of the studies described attempts to answer questions raised by previous research. The knowledge claims in most of these studies is modest, yet in total they represent considerable advancement of knowledge in these areas. The risky-shift literature has added greatly to our knowledge of group communication processes and what kinds of decision outcomes result from differences in these processes. The dissonance/self-perception literature contributes to our understanding of the influence

that behavior has on attitude formation. Evidence has accumulated that there is greater predictive efficacy resulting from looking at the influence of behavior on attitudes as an attitude formation process rather than an attitude change process. (2) Science is self-correcting. The risky-shift literature demonstrates this especially well. Wallach, Kogan and Bem (1962) reported that groups were riskier than individuals. This finding was replicated many times using the same life dilemma measure that Wallach et al used. Eight years later, Clark and Willems (1970) demonstrated that changing the instructions which accompanied this instrument eliminated the risky shift. Since both the results of earlier research and the procedures which were used to obtain these results were reported, they could be critically examined by other scientists. The examination in this case resulted in further research which seriously questioned the earlier findings. Other studies (e.g., Clement and Sullivan, 1970) testing the risky shift in situations that more closely approach "real" risks to the subjects found a conservative shift. In short, an error was detected and corrected. A finding which was accepted quite widely failed to hold up under further investigation.

A similar point can be made from the dissonance/self-perception literature with respect to the salience of initial premanipulation attitudes. Dissonance theory predicts that the more salient an initial attitude the more dissonance a counterattitudinal behavior would arouse and consequently more attitude change would result. The Snyder and Ebbeson (1972) findings provide support for the opposite position. Dissonance theory was in error but because theories are tied to empirical observations this error was found.

(3) Empirical controversies are resolvable. Are groups riskier or more conservative than individuals? This question could be discussed all term in a course in management theory and never be resolved. Science goes out and looks.

Further, because the looking is public and systematic, additional questions emerge which can also be answered. We now know that group decisions under different circumstances can be either more risky or more conservative that individuals and no different from individual decisions in other circumstances.

The dissonance theory/self-perception theory controversy is also well on its way to a resolution based on empirical observations. At this point their is more evidence indicating that self-perception theory provides better explanations and predictions. Indirect evidence for self-perception theory comes from Bem's interpersonal replications of dissonance theory framework experiments and from the pain perception experiment of Nisbett and Schachter (1966). Evidence for the greater predictive scope of self-perception theory comes from the over-justification effect described in the Kiesler and Sakumura (1966) study. Finally, researchers generated opposite predictions from the two theories. While the results of this experiment by Snyder and Ebbesen (1972) are not completely unequivocal, they do tend to support Bem's position.

(4) Science is exciting and creative. Many of the studies we have described here are extremely creative and interesting to read. In particular, Bem's (1968) reply to Jones et al falls into this category. Bem's (1967) interpersonal replications are especially well done, as is the Nisbett and Schachter (1966) experiment. From the risky shift literature Clement and Sullivan (1970) and Bishop and Myers (1970) are both very exciting studies.

The best time to present the guided literature review would be near the end of the term. Most introductory methodology courses, we presume, have students read some research reports near the end of the term so that they can see how many of the techniques and concepts they have been studying are used. Having them read a series of related studies such as those we have described would serve the

additional function of demonstrating the concepts or advantages of science that had been presented merely as assertions at the beginning of the course. Also, it probably would not be practical to present the guided literature at the beginning of the term because it would be difficult for students to understand the studies methodologically. These points: that science is cummulative, self-correcting and so on would then be reinforced. Short assignments and/or class discussion would help make them more explicit.

We feel it necessary to make one qualification at this point. Whether or not the guided literature review will actually make for a more effective presentation of these concepts is itself an empirical question that awaits formal test. The measurement and control problems associated with this kind of research are well known. However, from our own experience and from discussions with some of our colleagues, we have confidence in our hypothesized relationship between the guided literature review we have been advocating and students increased understanding of those concepts.

Finally, we want to once again emphasize that the areas we have described are just examples of strains of literature which could be used in a guided literature review. Instructors probably would be better off to use appropriate literature with which they have particular familiarity. Below we provide two additional lists of references which also could be used in a guided literature review. The first list is of studies that examine the relationship between distraction and attitude change. The second includes studies which focus on the two-step flow theory of mass media effects.

Distraction and Persuasion

Razran, G. Conditioned response changes in rating and appraising sociopolitical slogans. Psychological Bulletin, 1940, 37, 481.

Festinger, L. and Maccoby, N. On resistance to persuasive communications. Journal of Abnormal and Social Psychology, 1964, 68, 359-366.

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Summary

In this paper, we have argued for the use of a guided literature review in introductory communication research methodology courses. Such a pedagogical technique would make for a more effective presentation of such basic communication science concepts as: (1) Science is cummulative; (2) Science is self-correcting; (3) Empirical controversies are resolvable; (4) Science is creative. We have briefly described selected studies from two strains of communication research literature and provided references for studies from two additional areas, all of which would lend themselves for use in a guided literature review.

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